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## TCT@ACC-i2: The Interventional Learning Pathway

### INSIGHTS FROM REGISTRY DATA: WHY DO BLEEDING HEARTS DIE?

Poster Contributions

Hall C

Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Complexities and Complications

Abstract Category: 38. TCT@ACC-i2: Complex Patients/Comorbidities

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**Introduction:** Mortality post-PCI occurs more frequently in patients receiving a blood transfusion. The mechanism responsible for this is unclear. We examined the time course between PCI and death in patients dying within 30 days of PCI, comparing transfused and non-transfused patients.

**Methods:** Of 32,580 patients undergoing PCI from January 1999 - December 2005, 901 patients received transfusion within 10 days of PCI (excluding CABG related transfusion). We identified 445 non-transfused patients who died within 30 days. Systematic chart review was conducted for these 1346 patients including clinical characteristics, hemoglobin levels, site of any bleeding, transfusion and anti-platelet therapy; cause of death was according to ICD-10 classification.

**Results:** The rate of transfusion post-PCI was 2.7%. 14.1% of transfused patients (n=127) and 1.4% (n=445) of non-transfused died within 30 days of PCI. Of 572 cases dying within 30 days of PCI, 52% died within 3 days of which (40%) died within 24 hours. Transfused patients were more likely to be female, to have cardiogenic shock and IABP inserted (all  $p < 0.02$ ). Of patients dying within 72 hours post PCI, 86% of patients had a CV cause of death compared to 43% of patients dying during days 4-30 ( $p < 0.001$ ).

**Conclusion:** A significant proportion of deaths following PCI occur within the first 24 hours. There may be a direct early deleterious CV effect of transfusion following PCI or this hazard may be due to excessive co-morbidities existing prior to the procedure.

	TXAL30 (n=774)	TXD30 (n=127)	NTD30 (n=445)
Male %	53.6	55.9	67.9
Mean age years	70	73	70
Smoker %	15	18.9	13
HBP %	67.1	57.9	57.3
Hyperlipidaemia %	56.4	42.9	47.8
Baseline Cr mg/dl	128	113	85
Dialysis %	8.7	5.5	3.4
Prior PCI %	23.1	24	18.7
Prior MI %	39.8	48	36.9
Prior CABG %	12.2	14.4	12
Diabetes %	36.1	41.3	32.6
CHF %	20.3	28	20.3
Indication			
Emergent %	26.7	49.6	54.2
C Shock %	13.3	59.8	39.3
IABP %	10.5	35.4	21.8

Characteristics according to transfusion status. TXAL = transfused alive 30 days; TXD30 = transfused dead 30 days.  
NTXD30 = non-transfused dead 30 days.